

In the Claims

Please add new Claim 20.

20. (New) The method of Claim 1, wherein the oxidizer and hydrogen ions react in situ to form the corrosive reagent.

REMARKS

New Claim 20 includes all elements of Claim 1 and is directed to an embodiment of the invention in which the oxidizer and the source of hydrogen ions are dispensed onto the biological specimen, where they react in situ to form the corrosive reagent. Support for new Claim 20 is found at page 7, lines 1-13. No new matter is introduced.

Clarification regarding the status of Claims 18-19 is respectfully requested. While the Office Action Summary shows Claims 1-19 as rejected, the Detailed Action only rejected Claims 1-17.

The remainder of this Amendment is set forth under appropriate subheadings for the convenience of the Examiner.

Claim Rejections under 35 U.S.C. §102

Claims 1-17 are rejected under 35 U.S.C. §102(b) as anticipated by or in the alternative under 35 U.S.C. §103(a) as obvious over Roy.

The Examiner stated that Roy discloses the visualization of *Legionella pneumophila* in paraffin sections using hexamine silver and that Roy further discloses pretreating the biological sample with potassium dichromate (oxidizer that is a precursor of the corrosive reagent), followed by treatment with Holmes boric acid-borax buffer (acid source of hydrogen ions that is other than the corrosive reagent). The Examiner also stated that the disclosure of Roy is deemed to anticipate the claimed invention. The Examiner further stated that Roy does not teach perchloric acid as the hydrogen source and that, however, the choice of a particular acid accomplishes the same function in donating a hydrogen ion.

Applicant respectfully disagrees.

Applicant's claimed invention is directed to a method of staining wherein a biological specimen is treated by a process that includes treatment with a corrosive reagent. In the process, an oxidizer and an acid source of hydrogen ions are each dispensed onto the biological specimen to form a combination of the two. It is the combination of the oxidizer and hydrogen ions that contacts the biological specimen, thereby treating the biological specimen with the corrosive reagent. For an illustration of Applicant's staining protocol, the Examiner's attention is directed to Examples 2 of the subject application.

Roy discloses the visualization of *Legionella Pneumophila* in paraffin sections using a hexamine silver technique. The technique set forth by Roy has several sequential steps, including the following:

- i. Bring 3-5- μ m paraffin sections to water.
- ii. Place in Coplin jar containing 10% potassium dichromate for 1 hour at room temperature.
- iii. Wash in tap water for 5 minutes.
- iv. Place slides on rack and flood with 3% sodium metabisulfite for 2 minutes.
- v. Wash in running water for 5 minutes.
- vi. Wash well in four changes of distilled water.
- vii. Place in working hexamine solution in a Coplin jar and place in hot-air oven at 56°C.

As shown above, Step 2 relates to placing the paraffin sections in a Coplin jar containing 10% potassium dichromate (oxidizer) for one hour at room temperature. The technique then describes several subsequent "washing" steps with water, metabisulfite, and then again with water. These "washing" steps effectively remove the potassium dichromate (oxidizer) solution from the paraffin sections, preparing the section for the addition of the working hexamine silver solution (Step 7).

As discussed at page 216 of the cited reference, the "working hexamine solution" is prepared by adding Holmes' boric acid-borax buffer to stock Gomori-Burner methamine

(hexamine) silver solution. As also discussed at page 216 of the cited reference, Holmes' buffer has a pH of 7.8 and is "prepared by adding 8 ml M/5 boric acid to 2 ml M/20 borax."

The technique described by Roy is distinct from that claimed by Applicant.

Roy does not disclose treatment with a corrosive reagent such as chromic acid, which, as noted at page 9, lines 6-7 of the subject application, combines acid properties and oxidizing properties. Rather, Roy discloses pretreatment of the paraffin section with potassium dichromate, an oxidizer.

Applicant respectfully notes that the Examiner has not provided basis or evidence for considering the silver solution used in Step 7, and prepared with the 7.8 pH boric acid-borax buffer, as an "acid source of hydrogen ions."

Furthermore, even if Holmes' boric acid-borax buffer accomplishes the "function in donating a hydrogen ion," as stated in the Office Action, the hexamine solution prepared using the buffer contacts the sample after the removal of the potassium dichromate oxidizer, through the washing steps discussed above. Thus the protocol set forth at page 216 of the cited reference does not disclose a combination of oxidizer and hydrogen ions that contacts a biological specimen, thereby treating the specimen with the corrosive reagent.

Therefore, Roy does not teach or suggest the claimed invention. The cited reference does not teach or suggest a method of staining a biological specimen with a histological stain wherein the specimen is treated by a process that includes treatment with a corrosive reagent, the process comprising the steps of dispensing onto a biological specimen an oxidizer and dispensing onto the biological specimen an acid source of hydrogen ions, whereby the oxidizer combines with the hydrogen ions and the combination of the two contacts the biological specimen, thereby treating the biological specimen with the corrosive reagent.

Furthermore, there is no motivation in Roy to produce the claimed invention. In fact, Roy teaches away from Applicant's claimed invention, in that it teaches removing the potassium dichromate solution from the sample and several intervening washing steps before the sample comes in contact with the hexamine solution, prepared using boric acid-borax buffer.

Therefore, Claims 1-17 are not anticipated or, in the alternative, rendered obvious by Roy.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned at (978) 341-0036.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By Anabela C. Taylor
Anabela Cristina Taylor
Registration No. 38,999
Telephone: (978) 341-0036
Facsimile: (978) 341-0136

Concord, MA 01742-9133

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